



Reflections and Trends in Rail Electrification By Steve Griffith

When the Rail Electrification Council was launched four years ago it sparked the journey to promote the electrification of domestic railroad (freight and/or passengers) and how the railroads could serve as enablers of electric grid integration and innovation. The REC recognized the huge cost of this transformation as well as the cost savings potential electrified rail could deliver in terms of reduced maintenance, speed and flexibility, fuel efficiency, and environmental benefits. These upfront costs of electrification may be offset by a revenue-enhancing opportunity. The need for new and upgraded transmission facilities, especially those that portend an integrated and decarbonized national grid, represents an opportunity to supply railroad rights-of-way as sites for high-voltage transmission that can get location constrained renewables such as wind and solar to where they are needed in major power markets. The REC published a [white paper](#) entitled Rail Electrification in North America: Benefits and Barriers, that describes all of this in more detail.

Recent developments suggest that the conversations the Council started four years ago are making an impact. The Infrastructure Investment and Jobs Act (IIJA) [has over \\$300 billion slated for rail improvements](#), presenting an opportunity for improvement and modernization unlike any in the history of American railways. At the Council's [spring 2023 meeting](#) there was interest from the Class I railroads to have initial conversations about co-location of transmission along railroad rights-of-way, and how the Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements Program (CRISI) could be used to improve railroad safety, efficiency, and reliability; mitigate congestion at both intercity passenger and freight rail chokepoints; enhance multi-modal connections; and lead to new or substantially improved Intercity Passenger Rail Transportation corridors. The Council also recently conducted a series of [podcasts](#) for the Railway Age Magazine.